

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~A Structure of an~~ An electrode of electrically conducting material for use in an electrolytic cell, the electrode comprising:

a spacer composed of a non-conductive material~~means to prevent electrical contact between electrodes when used, and being arranged for through~~permitting flow ~~conducting of a process liquid to be treated therethrough, and~~

a conductive frame ~~having defining a number plurality of liquid through flow openings, the conductive frame having planar surfaces on either side and including means for connection~~being connectable to a current supply, wherein ~~one or both plane sides of the frame is covered with a~~ conductive perforated foil or a wire mesh is positioned adjacent to one of the planar surfaces of the conductive frame, and

wherein the spacer ~~means-is~~ is positioned adjacent to the a perforated foil or wire mesh to prevent electrical contact between the conductive frame and a second electrode ~~being adapted to cover one of the plane surfaces of the perforated foil or wire mesh, and the plane section of said perforated foil or wires mesh corresponds mainly to the plane section of the frame.~~

2. (Currently Amended) ~~The Structure of an~~ electrode according to claim 1, ~~characterized in that~~ wherein the wire mesh ~~includes~~ comprises parallel threads where each tenth or twentieth threads thread is composed of tantalum ~~while~~ and the intermediate threads are composed of platinum.

3. (Currently Amended) ~~The Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein ~~the~~ wires of the wire mesh are individually spaced from 100 microns to 25000 microns apart, and when ~~they are~~ woven, knitted, induction-welded or plaited into the wire mesh, have an air aperture ~~of from~~ between 15 microns to 25000 microns.

4. (Currently Amended) ~~The Structure~~ electrode according to claim 1, ~~characterised in that~~ wherein each wire of the wire mesh has a diameter in a range of 0.010 ~~mm~~ millimeters to 5 ~~mm~~ millimeters.

5. (Currently Amended) The ~~Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein the perforated foil or wire mesh is ~~formed~~ composed of a material from the group consisting of: tantalum, niobium, hafnium, zirconium, platinum, rhodium, iridium, ruthenium, palladium, or any alloy of these, or of and an alloy or a composition of wires of the different mentioned metals.

6. (Currently Amended) The ~~Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein the perforated foil is ~~comprised~~ composed of a plate in SS316L or higher alloy metal, and which is perforated by photochemistry.

7. (Currently Amended) The ~~Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein the spacer defines second through flow openings of the spacer means that are aligned with the through flow openings of the conductive frame.

8. (Currently Amended) The ~~Structure~~ electrode according to any of preceding claims, ~~characterized in that~~ wherein the perforated foil is a PVC or polypropylene sheet and is welded to the frame.

9. (Currently Amended) The ~~Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein the thickness of the conductive frame is approximately 5 ~~mm~~ millimeters.

10. (Currently Amended) The ~~Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein the frame is covered with a non oxidizable material covers the conductive frame to protect against contact with ~~said process~~ the liquid.

11. (Currently Amended) The ~~Structure~~ electrode according to claim 1, ~~characterized in that~~ wherein the perforated foil thickness is from 25-1000 microns and diameter of each perforation of ~~said~~ the perforated foil is from 25-2000 microns.

12. (Currently Amended) A ~~Method~~ method of preparing ~~the structure~~ of an electrode according to claim 1, ~~characterized in that~~ wherein sheets of perforated foil or wire mesh are anchored to a frame surface of the conductive frame, the method comprising the steps of:

subjecting a sheet of perforated foil or wire mesh to a stretch or tension force, and
forcing against and fixing to the frame surface the sheet of perforated foil or wire mesh.

13. (Currently Amended) The ~~Method~~ method of claim 12, ~~characterized in that~~ wherein the sheets of perforated foil or wire mesh are anchored to the frame in a manner selected from the group consisting of:

by adhesive operation,

by friction welding,

by laser welding, ~~or~~

by use of pressure or heat, and

by bonding and by exposing the foil or wire mesh to sufficient tension force.

14. (Currently Amended) A method for using the electrode ~~structure~~ of claim 1, in an electrolytic cell, the method comprising the steps of:

stacking and interconnecting said a plurality of the electrodes ~~structures~~ to form pairs of anodes and cathodes inside a pipe,

~~conducting liquids~~ causing liquid to flow through said pipe,

~~processing liquids being conducted~~ the liquid flowing through the paired electrodes ~~structures~~ in the pipe, and

applying a current to each pair of anode and cathode electrodes ~~structures~~.

15. (Currently Amended) The method of claim 14, further comprising alternately applying ~~wherein~~ a direct current DC power is ~~applied alternately~~ to avoid scaling and uneven tear and wear ~~in the case~~ where the anode and cathode are composed of similar materials.

16. (Cancelled)

17. (Currently Amended) The method of claim 14, wherein the distance between an anode surface of one electrode ~~structure~~ and a cathode surface of the neighboring electrode ~~structure~~ ~~may be~~ is approximately ~~0,3 mm~~ 0.3 millimeters.

18. (Currently Amended) The method of claim 14, further comprising ~~the step of~~ producing oxidants through electrolysis, for oxidation of organic material in liquids, and organic material on particles in liquids.

19. (Currently Amended) The method of claim 14, further comprising ~~the step of~~ producing oxidants through electrolysis, for oxidation and destruction of bacteria, spores, micro-organisms, algae and viruses in liquids.

20. (Currently Amended) The method of claim 19, wherein ~~said step of~~ the producing of oxidants through electrolysis is for treatment of fresh water and drinking water by conducting polluted liquids through flow openings of said electrode ~~structure~~.

22. (Cancelled)

23. (Currently Amended) The method of claim 19, wherein ~~said step of~~ the producing of oxidants through electrolysis is for destruction of virus, spores and bacteria, and micro organisms, algae and algal cysts smaller than 100 microns in ballast water from ships.

24. (Currently Amended) The method of claim 14, wherein the liquid that is being treated, before it is treated, is directed through a mechanical particle extractor to remove all particles and organisms larger than light aperture in the electrode ~~structure~~.

25. (Previously Presented) The method of claim 14, wherein the liquid that has been treated, after it is treated, is directed through a hydrophobic adsorption filter or hydrophobic adsorption media to remove potential excess organic compounds.

26. (Previously Presented) The method of claim 14, wherein the liquid while treated is directed through a flotation device to remove electro floated organic material.

27. (New). The electrode according to claim 1, further comprising a second conductive perforated foil or wire mesh positioned adjacent to the other one of the planar surfaces of the conductive frame.